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REPERCUSSION.

Translated from the French of Guersent, by J. Sidney Crane, M.D., of St. Louis.

Repercussion is a name given to an effect produced by certain topical applications, by aid of which the physician designs to repress and repel external morbid alterations, or even those which are more deeply seated.

Thus, repercussion is a medication not limited solely to the skin or external mucous membranes: it is extended also to diseases of the mucous canals, the orifices of which open without, and even propagates its action further under the sub-dermoid cellular tissue, and sometimes upon the organs deeply placed within the cavities. Repercussion is the result of many and most varied therapeutic means, which do not reside in a particular property, common to a special class of medicaments, but is the product of the application of bodies of different qualities.

Cold, iced and hot water, pure or medicated with acid, saline or alkaline solutions or astringent decoctions, &c., are employed as repellents. These liquids can be administered according to the case, under the form of lotions, injections, washes, baths or douches. To produce the same effects, solid astringent substances combined with lard, under the form of pomatum, are also employed. Pomades of the acetate of lead, of the sulphates of alumina and copper, tannin, rhatany, &c., called repellents, are also prepared with cerate of suet. These therapeutical agents, although differing in many respects, in their particular effects, produce, nevertheless, the same local and topical action; they all constrict the capillary net-work of the skin, and increase its action. Cold and hot water, notwithstanding the opposite effects which they at first appear to produce, conduct to the same result. When repellents are administered under the form of the douche, the shock that they cause contributes to produce a still more marked constriction of the cutaneous vessels; this first effect being produced, the immediate properties of the various medicinal agents act with great power. Alkaline, saline or astringent solutions constrict of themselves the cellular and vascular net-work of the skin, and increase the density of the dermis. Certain substances, such as the acetate of lead, the protonitrate of bismuth, act, besides, in blunting the sensibility of the contracted parts, and preventing their re-actions. Among the number of repellent agents ought also to be named, the different modes of compression, and particularly the bandage of Theden. Moderate compression of the dermis, by opposing the infiltration of the cellular tissue, increases, at least momentarily, the activity of the capillary system, favors the resorption of fluids already effused, and establishes a true repellent action, but in a mechanical manner. Consequently the therapeutical effects of repellents are confined to the following: they constrict the vascular and cellular systems of the skin: they at first blunt their sensibility somewhat after the manner of astringents: they repress by this action the over-abundant secretions, and cutaneous, gaseous, serous and sebaceous exhalations, and prevent morbid secretions resulting from chronic phlegmasiæ of the skin. Gradually the impression produced communicates itself to the sub-cutaneous cellular tissue and even to the subjacent parts, thus favoring the resorption of sanguineous, serous and purulent secretions, which might remain under the dermis, the cellular tissue, or even deeper, in the glands. It is upon these immediate effects that the advantages and inconveniences of repellents depend.

Cold and iced water have been employed with success, as is well known, in cases of strangulated hernia, when emollients were without effect. The utility of these therapeutical means has been also well established by many examples of superficial aneurism. I have seen recently an aneurism of the popliteal artery which was thus reduced from two thirds of its volume to a simple indolent tumor, hard, and, as it were, fibrous, in which there could hardly be perceived any arterial pulsation.

It is principally in the extensive phlegmonous erysipelas of the limbs, which threatens gangrene to a large portion of the skin, and in certain whitlows, that the compressive bandage of Theden has been used with almost constant advantage. M. Recamier some years since made a happy application of methodical compression in many cases of inflammation of the breast, and has succeeded by these therapeutical measures in obtaining a complete resolution of large tumors of the mammæ, which had resisted all other medicatio ; he has even obtained by this compression a manifest amelioration in certain cancers of the mammæ.

The therapeutical use of repellents in chronic cutaneous affections requires great circumspection. It cannot be denied that their administration, when wisely directed, conduces powerfully to the cure of many of these affections, and it is even difficult to effect that cure in many cases, without the use of lotions and either the alkaline douche, or that medicated with hydrosulphuric acid, or without employing some of the pomades more or less stimulating to modify the state of the skin ; and, in reality, all these means are true repellents. The prudent physician, however, will not resort to the use of such therapeutical agents until well assured of the condition of the patient, and after having taken all proper precautions to prevent the inconvenience which may result from their use. He ought also to examine every organ with care, to determine if any of them present traces of alteration of tissue ; and if the most attentive examination proves them to be in a state of perfect integrity, and the individual appears to enjoy good health, he will employ repellents with care, together with revulsives in the intestinal canal and blisters, setons, moxas, &c., to prevent the consequences of retrocession of these cutaneous irritations, the sudden suppression of which is dangerons in proportion to the length of time they have existed. Notwithstanding the utility of purgatives and cutaneous suppuratives in these cases, they often do not suffice to counterbalance the inconvenience resulting from the use of repellents, and to oppose the development of organic lesions which often follow their employment. There is scarcely a physician who has not many times met in his practice individuals affected with cancer of the stomach, intestines, liver and uterus, or with tubercles of the lungs developed more or less rapidly, after the inconsiderate use of repellents, in old and stubborn cases of acute eczema and porrigo. However, the influence of repellents in the production of organic disease has been, doubtless, exaggerated, for it is more than probable that in many such cases the alteration of tissue precedes the use of repellents: but admitting even a simple coincidence, it is certain that the rash employment of repellents in cutaneous diseases connected with organic alteration, hastens the development of the latter.

It is clearly proved by experience that the astringent pomades employed by charlatans for the cure of ring worm, as well as many of the cosmetics in use among females, frequently give rise to acute and chronic diseases; medical works are filled with observations which determine the truth of this remark. Infants are more exposed than adults to the bad effects of repellents; I have seen many fall victims to bronchitis, to pneumonia or chronic enteritis, with and without tubercles, after the recession of porrigo larvalis or of other cutaneous affections situated upon the face or body. It is necessary, then, to abandon the use of repellents in the therapeutics of chronic cutaneous diseases, at least in every case where the health of the individual is doubtful, and to employ them under no circumstance without the precautions pointed out for the purpose of preventing the inconvenience arising from their use.

Repellents, on the contrary, are commendable, and can be employed with success and without danger, in certain simple cases of blennorrhœa, especially if they are recent, and with still more advantage in ophthalmia or ophthalmo-blennorrhœa, either acute or chronic: repercussion in these cases is so powerful an agent, that repellent collyria and the application in particular of nitrate of silver in solution, and even with the solid stick, are now in every-day use.

It is necessary to rank also among the number of effects of repercussion, the influence, more or less active, of irrigations, of affusion and of the douche, in most of the acute or chronic diseases which have their seat near the internal organs, and particularly in cases of serious and extensive contusions, of deep-seated abscess and of cerebral affections.—*St. Louis Medical and Surgical Journal.*

VALUE OF AUSCULTATION IN DISEASES OF THE CHEST.

[Dr. James Turnbull, Physician to the Liverpool Northern Hospital, in an Introductory Lecture reported in the London Lancet, has the following judicious remarks.]

The signs furnished by auscultation and percussion are called physical signs, because they are derived from physical examination of the chest, which enables us to ascertain the conditions and relations of the thoracic organs. Dr. Williams observes, that " physical signs and vital symptoms respectively have their value in making known the nature and extent of disease. Physical signs are more certain, because they appeal more directly from the seat of disease to the senses; depending on simple and more constant causes—physical properties, they are more constant, and less subject to variation than vital symptoms, which result from more complex and therefore more variable vital properties." The knowledge which we acquire of the state of the lungs by auscultation and percussion is much more direct and positive than that furnished by vital symptoms, for we may thus ascertain with great certainty whether they are both permeable to air or not, or the presence of mucous fluid in the air cells, or any increase that may have taken place in the density of their structure. In many cases, the discovery of the disease from symptoms is extremely difficult, or altogether impossible, and yet with the aid of physical signs, it is very easy and very certain. To illustrate this, let us compare the two diseases—chronic pleurisy and pulmonary consumption. The symptoms are so similar, that in many instances it would be almost impossible for any one, from symptoms alone, to make the diagnosis. In both diseases, there may be pain in one side, with shortness of breath, cough, and expectoration of muco-purulent matter, hectic fever, with great debility, emaciation, and night perspirations, or diarrhœa, and yet, notwithstanding the similarity in the symptoms, the two diseases are very different in their nature, in the plan of treatment which they require, and in the probability of a favorable or unfavorable termination, the one being in the vast majority of cases fatal, whilst in the other, a judicious plan of treatment will generally save the patient, provided the disease be free from complication with tubercles. Here, the value of physical signs is very great, but it is still further shown by referring to those diseases which have been called latent, from frequently running their course without being accompanied by the ordinary symptoms. Thus, the lungs may become solidified from inflammation, with scarcely any cough, dyspnœa, acceleration of breathing, pain, expectoration, or fever. In typhoid pneumonia, the symptoms are generally indistinct, and in albuminous nephritis I have seen both lungs become rapidly solidified without any pain, and with the other symptoms but imperfectly marked. In pleuritis, too, the disease is not unfrequently latent, and attended with no pain, and very little local or general derangement. In all these cases, though the symptoms are indistinct or wanting, the physical signs enable us to trace the progress of the disease, and guide us in the treatment.

To illustrate still further the value of auscultation, and in reference to the organs of circulation, let us take inflammation of the heart and aneurism of the thoracic aorta. There are perhaps no diseases in which physical signs are more valuable than in pericarditis and endocarditis, for in both of these affections of the heart the only diagnostic signs are those furnished by auscultation; and pain, palpitation, oppression, and irregular action of the heart may be either wanting, or may not occur, until too advanced a period of the disease for its successful treatment. Dr. Latham tells us, that previous to the discovery of auscultation, the connection of acute rheumatism with pericarditis rendered its diagnosis pretty well understood, when the symptoms referable to the heart were present; but that when they were wanting, or did not occur until a late period of the disease, it often proved fatal, either from the disease being altogether overlooked, or from the proper treatment being adopted too late. "But," he observes, "the like mistakes could hardly occur now; it is scarcely possible that pericarditis coming on just at the suspected time, and just under the suspected circumstances, could now be overlooked. Every prudent physician, I presume, searches after it day by day with his ear, in all cases of acute rheumatism; and although the heart itself shows no vital consciousness of its ailment, either by feeling or function, by pain or dyspnœa, yet will the mere mechanism of the disease proclaim the fact of its existence to the ear." Endocarditis is a disease which may serve to point out, if possible, still more forcibly the value of auscultation, for previous to the discovery of this addition to our powers of diagnosis, although pathologists were familiar with the valvular lesions which are its effects, they were ignorant of its very existence as an acute disease. Now the diagnosis, at the earliest possible period of this disease, which lays the foundation of the majority of the fatal organic diseases of the heart, is a matter of most momentous importance, in order that the treatment may be adopted sufficiently early to eradicate the disease completely. If one of the tendons of the external muscles; if one of those of the hand, for example, should inflame and become contracted, as sometimes happens, a slight deformity only, or inconvenience in the part, results; but should one of the small tendinous cords which stretch the mitral valve become contracted, or should one of the semilunar valves of the aorta become shortened, thickened, or indurated, from the effects of inflammation, such apparently trifling lesions affecting this vital part of the economy may induce the most complicated fatal organic disease. We should therefore never forget that this endocardial inflammation may occur in the most insidious manner, with little or no inconvenience referable to the heart; and that without auscultation it may be overlooked, and become known to have existed weeks, months, or years after, by the signs of irremediable organic affection of the heart.

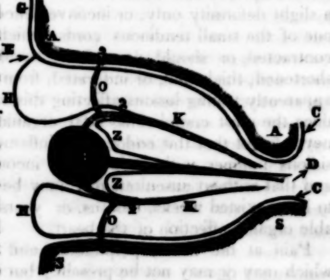
Pain at the heart, palpitation, and irregular action, are symptoms which may or may not be present; but a bellows or endocardial murmur is the most certain evidence of the existence of endocardial inflammation; and, though not invariably present, it may often be discovered before there are any symptoms referable to the heart. The complete removal of the inflammation being of such vital importance in this disease, in order that permanent injury may be prevented by the earliest possible treatment, physical signs become of the highest value; and Dr. Latham urges upon us never to omit to listen to the præcordiaal region whenever we visit a case of acute rheumatism. "All," he says, "may seem to be going on well. The general symptoms may be far from severe. The chest may be free from pain. The heart's action may not awaken suspicion by its force or irregularity. Nevertheless its internal lining may be inflamed, and if you listen, the endocardial murmur may convey the momentous fact directly to your ear."

ANATOMICAL RESEARCHES IN PARIS.

[The following letter is from a young American physician, now in Paris, to Thomas Miller, M.D., of Washington. The latter gentleman has kindly forwarded it for insertion in the Journal.]

My Dear Doctor,—For some time past, I have been occupied in dissections, with M. Richet, prosector of the School of Medicine, and from whom I have gained some new ideas in anatomy, which are presented for your amusement. These are not of any very great importance, but still they are not noticed by any writer, and will be presented to the medical world in a few months, by means of a work on Surgical Anatomy, which is now finishing. My little design has reference to a ligament, called by him, *orbito-palpebro-ocular*. The name is without doubt *tremendous*; but still you will admit, it is the best which could have been applied. Next, the new tendons, which have been discovered as belonging to the recti muscles of the eye. The two are taken in connection in the sketch, and will be noticed in similar description. You observe that the diagram represents a vertical and antero-posterior section of the eye and its orbit. This ligament is the termination of the dura mater which adheres to the cranial bones. Let A A and S S represent the bones of the orbit; at C C we commence with the laminæ of the dura mater, already mentioned. We follow this along the roof of the orbit and find in it an opening, or rather a little sheath, at 3, to which we will soon return. Following the membrane, designated by the opaque line, to E, we find there is a bifurcation, and that one layer, G, goes upwards, to form the external periosteum of the bones of the head. The line between C and E, then, represents the *orbitar* portion of the ligament. We next observe H, which forms a suspensory ligament for the upper eyelid; this is the *palpebral* portion. To prevent any complexity of descrip-

Orbito-palpebro-ocular Ligament.

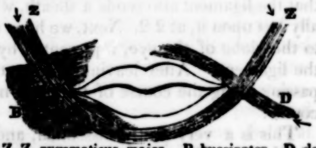


tion, we will notice, for a moment, the new demonstrations of the recti muscles. The old origin and insertion of the superior rectus being left, just as it has always been described; let us notice what is drawn at O. There are, then, two insertions; one upon the globe of the eye, and another, represented at O, going up, through a little sheath, to 3, the upper part of the orbit. The same is observed in the drawing of the inferior muscle, its opponent. This proves, then, that even without the antagonist muscle, the motion of the eye, under the influence of either rectus, is limited by the orbitar insertion. So that were one paralyzed, the deviation, produced by the unbalanced action of the other, could never be very great.

Let us now return to our ligament. We have described the *palpebral* portion, H, and will now follow the ligament, in its course. It is next seen, applying itself outside of the *globular* insertion of the rectus muscle, whilst a little sheath permits the passage of O, the *orbitar* tendon. Next, the body of the muscle is represented at K, and observe that the ligament also sends a sheath, which is represented as being gradually lost upon it, at 2 2. Next, we have at Z Z, the ligament applying itself to the globe of the eye, represented by B. This is the *ocular* portion of the ligament. After leaving the posterior part of the globe, it is seen passing along the course of the optic nerve D, and is insensibly lost in its course.

This is a very pretty dissection, and is entirely due to the researches of Richet. The dissections were shown at his public course of lectures, and others are deposited in the cabinet of the School. I attempted, some time since, to repeat the observations under his directions; but they were not highly satisfactory, on account of a bad subject and a worse dissector. At any rate, I was enabled to find the new tendons of the recti muscles, and that may be considered something; although I could not find all the turnings of the ligament. I intend, however, to continue these observations on some better-developed subjects. As you will probably repeat them in your private cabinet, I will notice the mode in which he looks for them. The calvarium is sawed off, and then the roof of the orbit knocked in, with a hammer, and in a moment, you are on the orbitar portion of the ligament; the rest depends upon patience, a good subject, and a capital scalpel. He also observed that the obliqui muscles are inserted *much further* back on the globe of the eye, than is ordinarily described, and this has considerable influence on the ideas of strabismus, as their action must be thus in a measure changed. Thus, instead of turning the eye inwards, *if the muscle is inserted further* behind, it acts, as in the end of a lever, and turns the eye *outwards* and in an opposite direction. You will see at a glance, the weight of this observation, and have already gone through with it, in your mind.

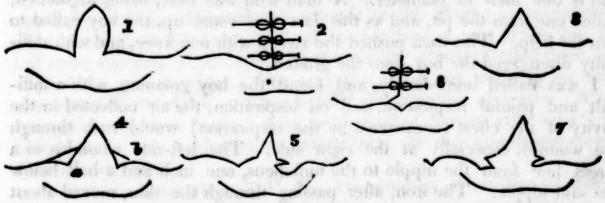
There is one thing which particularly pleases me in French anatomy; and that is, *their mode of observation* tends to give confidence in what they describe. This they call the *natural mode of dissection*, and most frequently eschew the use of the *blades* of their scalpels. They tear with their fingers and the handle of the instrument. They take, as their model, the manner in which pus burrows; dissecting along the course of organs, leaving their envelopes intact. When this principle is applied, it certainly gives the best results and the most rational ideas of the anatomy of regions and layers. I can exemplify this mode, in Richet's description of crural hernia, which especially pleased me, on account of its simplicity and evident truth—this I will attempt hereafter. Richet told me, the other day, that this mode of dissection has changed, in a great measure, the anatomy of the perineum, and as soon as I learn it you shall be informed. But this natural mode of dissection proves, without a doubt, that much has been made by the anatomist's knife, and that much must be cast aside, which has been hitherto cherished knowledge. At the present day, anatomists do not cut the brain, they tear it, and thus follow every portion of the organ most perfectly. Longet would no more think of cutting a brain for demonstration, than you would of cutting through a leg and then attempt to teach the muscles on an amputated stump. But of this, more can be said at another time.



Z Z, zygomaticus major. B, buccinator. D, depressor anguli oris.

Many small points in anatomy may be picked up here, and whilst I am on the subject, I shall give you a question for some of the young gentlemen in the "green box" next spring. "What is the origin and insertion of the orbicularis oris?" Your candidate would open his eyes if you told him "both zygomatic processes and the bodies of the inferior maxilla!" Yet such is most undoubtedly the case. We used to be taught that it was a true orbicular muscle, and independent of all others; but I will now proceed to give the present notions, with the addition of the little diagram annexed. It is made up, of three pairs of the facial muscles, viz., two zygomatici majores, two buccinatores, and the two depressores anguli oris. Looking at the diagram, we first notice the zygomatici, which we were taught had their insertion at the commissures of the mouth. Instead of this, they go beneath the lower lip, and each meeting in fibre, assist to form the lower part of the sphincter oris. Look next at the depressores anguli oris; instead of terminating also at the commissures, they go along the upper lip, and then by an interlacement of fibres, form, in part, the upper part of the muscle. Next, we look at the buccinatores. The fibres of the upper portion of the muscle of one side, go to the upper lip, and meet there, those of the opposite muscle—while precisely the same is observed in regard to the lower fibres, which have a similar termination beneath the lower lip. Thus, in examining the upper portion of this complex muscle, we find it is composed of the two depressores and half of each the buccinatores; whilst the two grand zygomatici and the inferior halves of the buccinatores, are for the portion beneath the lower lip. This has no particular surgical importance, and is only interesting to you as a practical anatomist.

Whilst I am in this region, it would be as well to speak of the present mode of operating in cases of hare-lip, and the means of preserving something of the *original beauty* of the mouth. The French surgeons have not been content with getting rid of the hideous fissure in the lip, but are excessively annoyed at the absence, *after* the operation, of the little tubercle in the middle of the upper lip. They actually considered this a serious deformity, and labored for a remedy, until success crowned their efforts. The first method was to pare the edges of the fissure, so that an ovaloid form was obtained ; and then, it was hoped, that by bringing the edges together, a nice little tubercle would be made. The incision was then made, as seen in fig. 1 ; but the application of the twisted suture did not give a result quite as good as you see at 2 ; so it has been abandoned. The next process is much better, and obviates the difficulty. At fig. 3, you have the edges of the fissure prepared. Next, in fig. 4, at *a*, a little angle is completely cut off, with the scissors. But at *b* on the opposite side, the incision is not carried so far, and the little angle is *left*, hanging by a very small portion. So that at 6, where the twisted suture is applied, you have a nice little tubercle, which serves the purpose finely. But there is still another method. After the first parings are made, the two little angles are left on both sides, as seen in 7, and the same end is attained, though it seems to me that the process described at 5 is preferable, and that adhesion would more certainly take place. This little thing shows how decidedly particular the French surgeons are about a matter of no importance. But at any rate, if I ever have the good fortune to have a pretty *woman* patient, I shall certainly adopt their process. But now let us proceed to the new and simple view of crural hernia, of which I have already spoken in another portion of my letter.



Paris, January 6, 1846.

EXTENSIVE WOUND OF THE THORAX—RECOVERY.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—On the 21st November, 1845, in the afternoon, Wm. H. Jones, 18 years old, driving one of the whimsey horses on the ore bed, on Palmer Hill, near two miles north of this place, while letting down the empty ore box (the pit being thirty feet deep), and when the box was about five feet from the bottom, a miner called to him to stop. The boy immediately took hold of the dog of the whimsey sweep, so as to throw it on the opposite side, and counteract the lowering of the chain. But, missing his hold, he was thrown down on his back, his head inside of the ring, and his feet out amongst stones. As he fell, the sweep had turned once, and the dog caught the left elbow, tore the flesh between the fore-arm and humerus, and was thrust through the thorax, passing out at the opposite side and pinning the boy to the grouud. The dog is square, about three feet long, seven eighths of an inch in diameter, pointed at the end, and by being worn has three sharp edges, somewhat bent, within four inches at the end; at which place the iron is enlarged, and is one inch in diameter. A man who was near, being frightened, called one from the pit, and as this last one came up, the boy called to him for help. This man pushed the sweep with one knee, and with difficulty disengaged the boy from the ground.

I was called immediately, and found the boy groaning, with a difficult and painful respiration, and on inspiration, the air collected in the cavity of the chest (occasioned by the respiration) would rush through the wounds, especially at the right side. The left-side wound is in a direct line from the nipple to the umbilicus, one inch and a half below the said nipple. The iron, after passing through the skin, moved about one inch on the outside of the ribs towards the pit of the stomach, and entered between the cartilages of the sixth and seventh ribs. The right-side wound is in a line from the left sterno-cleido articulation and right nipple, two inches and a quarter below and outside of the said right nipple. One inch and a half from this spot, towards the pit of the stomach, is the hole between the seventh and eighth ribs into the chest. In both wounds the lower lip seems drawn up so as to close in some measure the holes through the chest, owing to the bend of the dog before mentioned, and resistance encountered in the skin, muscles and ribs.

The chest, in the line of the wounds, measures around 26¼ inches. The boy had bled from his nose, but I could not ascertain that the same blood proceeded from the lungs. The pit of the stomach seemed bloated. He is quite rational and inclined to talk, wants to drink often, and is afraid of dying. He begs not to be bled. The extremities cold, pulse consequently small and slow.

I dressed the wound of his arm, by bringing the lacerated and flabby parts together with strong strips of sticking plaster, and dressed the wounds of the chest with lint saturated in three parts olive oil and one of tallow. Prepared three grains of tart. antim; four drachms of tr. lobelia c.; fifteen drops spt. menthæ pptæ, with six ounces of water. One teaspoonful to be taken every three hours. The bowels had been open, before the accident, in the afternoon. Ordered mustard counter-irritants to the feet, warm applications to the arms and legs, quietness, water or water-gruel for drink and food, and left the patient at 6 o'clock, P. M.

Nov. 22d.—Visited the patient about 11 o'clock, A. M. He was warm, face flushed; pulse quick, 130 in a minute; had been restless during the night; bowels not moved; respiration not so difficult nor so painful; and complains the most of his right side being painful. Dressed the wounds of the chest in the same way as yesterday; perceived that the right wound was a little watery. The bladder had been emptied several times, and its water was clearer. But the bowels had not been open. Ordered one ounce of Epsom salts in a tumbler of water, and a teaspoonful to be given every hour, and even oftener, according to the thirst, and until the bowels should be acted upon. The antimonial solution to be continued.

23d.—Visited again at 11 o'clock, A. M. Found the patient with face less flushed; skin rather moist and softer; breathing as yesterday; pulse 110; bowels not yet moved, but indication of their being affected, by the rumbling, &c.; urine voided freely, but becomes rather thick and mealy by settling. Dressed the wounds of the chest; no suppuration yet. Looked at the arm; took off the bandage, a part of the lint, and left some adhering to the arm with the sticking plasters; oiled them, and applied the same bandage. Prepared five grains tart. antim.,; spt. menthæ pptæ, fifteen drops, in three fourths of a tumbler of water. A teaspoonful every three hours. Also, one ounce of Epsom salts in a tumbler of water, one tablespoonful every hour, till the bowels are moved. Continue the gruel.

Visited him again about 3, P. M. On account of excitement, flushes on the face seem to come on.

24th.—He is about the same as yesterday. The flushed face was of short duration; rested well last night; to-day pulse 110; bowels not moved yesterday, as expected; great uneasiness; abdomen tender, especially towards the epigastrium. An injection was given, which relieved the bowels of a part of their contents, especially of a great deal of wind. The patient felt relieved. Would like to eat. Nothing is allowed him but gruel. Dressed his wounds. The arm looks well. The wounds of the chest begin to suppurate. Wound of the right side is yet the most painful. The patient feels easier when dressing the wounds; they are open, and the air rushes in or out of the chest. Ordered the same antimonial to be continued, and a mild cathartic (castor oil) to be given in the afternoon.

25th.—The castor oil operated well yesterday, and to-day bowels are free; less pain in general, still complains of his right side being more painful than the other; says that he occasionally feels a darting pain in the region of the diaphragm, at the upper part of the epigastrium. Wounds look well. Wants to eat, but nothing more than a little weak tea to be given, besides the water gruel. Pulse 95. On the whole, he feels tolerably comfortable.

26th.—No alteration.

27th.—The castor oil he took last evening moved the bowels. Pulse 76. Feels hungry, but no alteration in diet.

28th, 4, P. M.—Bowels not open to-day, but no cathartic prescribed; considerable perspiration, especially when he sleeps; pulse 75 to 80; feels hungry. The right side of the chest, between the wound and the pit of the stomach, seems swollen or more raised than the other. This was not particularly noticed before. Allowed him a small cracker in a little weak tea, during the night.

29th.—Bowels not open yesterday nor to-day. Ordered this afternoon a mild cathartic. Face somewhat red; pulse nearly 96. A couple of crackers allowed to-day.

30th.—No material alteration. Pulse 88. Castor oil at night.

Dec. 1st.—Nothing very different. Pulse 80; bowels open. Perceived that the aperture on the right side was getting smaller, threatening to close up.

2d.—The right side swollen yet, but not so painful as it was a few days ago, and runs still. The left side runs a great deal more. Put a tent three inches and a half long, in this last one. Pulse 75. Allowed, besides crackers in weak tea, half a cracker dry, twice a day, to suit the patient's wish.

3d and 4th.—Two or three more crackers allowed.

5th.—Left side runs a great deal.

6th.—Allowed some codfish, boiled tender and fixed in a little milk. Instead of castor oil, aloetic pills sufficient to keep the bowels regular.

7th.—Bowels not open since yesterday. Distress in the abdomen, and complains of not being able to make water. The distress is relieved by passing wind. Ordered three fourths of a teaspoonful of spt. terebinthinæ and one tablespoonful of castor oil, with a few drops of spirit of camphor.

8th.—Feels better to-day. Proud flesh in both wounds. The right one is most healed. Proud flesh cauterized with nitrate of silver, and sometimes with red precipitate of mercury.

The boy has gained. The tent was taken off on the 30th, as it could not be introduced more than one inch. Afterwards the left wound, the only one remaining, was dressed with basilicon salve, and healed before a week. On the 3d of January he went out a mile and a quarter, and about the middle of the month he went to school, and since he comes down every day, walking about one mile and quarter, from his father's house, to this school. He is lively, and plays as well and as much as his playmates.

Remarks.—The lungs, in this case, were saved by the boy being thrown on his back, and, probably, by their being empty of air. If either of them was hurt, it was the right, which might have been lacerated. But the pleura was perforated on both sides of the chest, and the mediastinum almost to the diaphragm. I cannot conceive that the diaphragm was not lacerated. There is every reason to believe that it was hurt, by the position of the boy, by the course of the iron, by the distention, pain and soreness at the upper part of the epigastrium. If the diaphragm had been cleared of injury, the lungs would have been in more danger.

The greatest danger was, undoubtedly, inflammation of the lacerated parts in the chest, and the remaining of matter in the cavity. For this reason my object has been to keep a free issue from the injured cavities, prevent and counteract the most severe inflammation of the serous membranes of the thorax, not excepting the diaphragm, and probably some other parts. A strict antiphlogistic regimen, with low diet, have been the means of saving this boy.

If this case, Mr. Editor, can interest any of your readers, I shall be happy in having contributed it to your valuable Journal.

Au Sable Forks, Clinton Co., N.Y. Respectfully yours,
Feb. 1846. F. I. D'Avignon.

CAUSE, NATURE AND TREATMENT OF WESTERN FEVERS.

To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—The following items are respectfully submitted for publication in your Journal.

1. Marsh miasm is a subtle virus, and the material agent that produces the various (so called) bilious fevers of the West.

2. This poison is inhaled, enters the circulation, and acts as a disturbing cause in the system of nutrition.

3. It destroys the healthy balance between composition and decomposition, or assimilation and metamorphosis, diminishing or entirely suspending the former, and morbidly increasing the latter.

4. The metamorphosis of the vital tissues does not result in the formation of cholic acid and urate of ammonia, or proper bile and urine, but in an *abnormal* transformation.

5. The transformation of the living organism does not consist in the oxidation of its constituent elements, and the consequent formation of carbonic acid matter and animal heat, as is the case in inflammatory fevers and those of high reaction.

6. For want of centrifugal force, or in consequence of the sedative influence of the poison, this mass of transformed animal matter with the blood is accumulated in the central vascular system, and in consequence of a deficient hæmatosis the blood is rendered dark and thick.

7. Congestion consists in an overloaded state of the vascular system with this impure blood, and an engorged and obstructed condition of the liver, and a consequent determination of blood to the head.

8. The brain, in all cases of portal congestion and hepatic obstruction, suffers in consequence of a deficient inferior circulation, while the balance is thrown upon the brain, constituting what might with propriety be called *hyperæmia of the encephalon*, which may, and in fact often does terminate in inflammation of this organ in fatal cases of congestive fever.

9. There are three grand indications to be fulfilled in the treatment of congestive fever, whether of the intermittent, remittent or continued form; viz., 1, recall the circulation to the surface and extremities; 2, stop the *morbid* metamorphoses of the vital tissues; 3, unload the liver and keep up a free discharge of "bilious matter" (?) until the blood is renovated.

10. The first indication is fulfilled by the use of stimulants, externally and internally.

11. The second, by the introduction into the system of some eutrophic agent, such as quinine, salacine, arsenic, &c., which will act on the system of nutrition, neutralizing the poison or fortifying the vital

powers against the chemical, or the force of assimilation against that of transformation, and thereby restore the balance between these two opposing movements in the animal economy.

12. The third and last indication is fulfilled by emetics, deobstruents and laxatives. Ipecac. makes the best emetic; calomel the best deobstruent; castor oil, rhubarb and jalap, the best cathartics.

13. Drastic cathartics should generally be avoided, especially in the first stage of the disease. They do hurt by irritating the mucous membrane of the alimentary canal, and therefore increasing the congestion by diminishing the centrifugal force, or rather by increasing the centripetal; also by producing a serous discharge from the portal capillaries without acting particularly upon the liver, thereby rendering the blood in the portal vessels more thick and gluey, which is already too much so to circulate readily through this organ. At the same time severe purging tends powerfully to debilitate the patient, without the least possible gain in the first stage, except it unloads the bowels of fæcal matter. But in the latter stage of the disease, after the "bilious matter" is discharged in large quantities into the bowels, it is necessary to give pretty active and frequent cathartics.

14. Profuse perspiration is of no use, but on the contrary it thickens the blood and debilitates the patient.

Note.—I have known patients, almost destitute of fat, laboring under congestive fever, to lose five pounds in weight a-day for several days in succession; and the only secretions that were materially increased, were those of the liver and bowels. The discharge was homogeneous, mostly black, and of a semi-fluid consistency. The respiration was slow and oppressed, and the surface and extremities cool; the pulse slow and soft. Now if the tissues did not pass off through the liver and bowels, where did they find their exit? H. Hunt, M.D.

Delavan, Wisconsin, Jan., 1846.

ANEURISM CURED BY GALVANO-PUNCTURE.

[Prof. J. C. Cross, late of the Transylvania University, writes from Paris as follows, respecting a new mode of treating aneurism. His letter is published in the Western Journal of Medicine and Surgery.]

M. Petrequin has made a publication on this subject, of which the following is a summary analysis. The author states that when we consider the danger which an operation for aneurism involves, any safe means by which we may dispense with it, must be considered a great conquest. The following are some of the results of his analysis of the operations that have been performed for this disease, when affecting the principal arteries. He thinks, one-sixth at least, of those operated on for aneurism of the crural and primitive carotid, die; of the external iliac, one-fourth; of axillary and subclavian, one-half; of the branches of the brachio-cephalic trunk, two-thirds, &c. This being the case, we may form some idea of the value of a process not only more simple, but one devoid of danger. The application of electricity, says M. Petrequin, has been suggested, but no advantage has resulted from it, and all that the science furnishes on the subject is to be found embodied in the following lines written by MM. Marjolin and Berard, in 1833. "They have endeavored to induce a coagulation of the blood in the sac by electricity transmitted through needles plunged into the tumor. *This idea*, which originated with M. Pravaz, has not yet, to our knowledge, been reduced to practice." To satisfy himself on the subject, Petrequin addressed Pravaz, from whom he learned that it was nothing more than a speculative thought which researches on another subject had inspired, and that he had never performed experiments on man or animals to test its practicability. Petrequin experimented upon human blood immediately upon its abstraction, and the results obtained were so satisfactory as to induce him at once to make application of it to the cure of aneurism. The case in which it was first employed and with success, was a traumatic aneurism of the temporal artery of the size of an almond, of a soft consistence and slightly sensible on pressure. Every precaution was taken to determine the precise nature of the tumor, and that it was aneurismal there could not be the least doubt. In the presence of many persons two fine, sharp steel pins were plunged into the tumor about four-fifths of an inch, in such a manner as to cross at right angles. A communication was established between the heads of the pins and the poles of a pile. The first instant of contact produced a shock and severe pain, which went on increasing as the galvanism was augmented, until they became so intense as to render it necessary to suspend the sitting. The duration of the galvano-puncture lasted about ten or twelve minutes, and in that time the direction of the galvanic current was changed three times. During the operation the pulsations progressively diminished, until at length they ceased entirely. The pulsating aneurism was replaced by a solid and hard tumor, which at the expiration of ten days, was being gradually absorbed. This cure was considered radical. Now, M. Petrequin thought that he had fully established the priority of his claim to having first practised galvano-puncture for aneurism when he consulted Pravaz and obtained from him the assurance that he had never tried it; but he was mistaken. At a meeting of the Academy of Sciences, on the 8th of December, we were surprised, if not amused, to find that a letter had been received from Mr. B. Phillips, of London, who claims over M. Petrequin, of Lyons, the priority of the employment of galvano-puncture in cases of aneurism. The profession will doubtless rejoice to learn that they are not disputing over the skin of the bear before the bear is killed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, APRIL 22, 1846.

Transactions of the Philadelphia College of Physicians.—Nothing more effectually raises the reputation of scientific men or institutions, than giving to the world frequent published abstracts of their labors. Out of sight out of mind, is certainly true in this generation. Yet in the face of this truth, there are associations, here and there, indulging the satisfactory supposition that the welkin rings with their importance, although not a member of the Sanhedrim of exclusives will transmit his name beyond the boundaries of his own residence. To command respect, gain the public attention, and confer the benefit which the scientific man has it in his power to bestow, frequent reports should be made, without which, a light might burn under a bushel till doomsday, and no one be the wiser for it. Are there any such non-committal, non-publishing societies in Massachusetts?

A summary of the Transactions of the College of Physicians of Philadelphia, embracing the time from November to March, 1846, making 416 octavo pages of published matter in the whole, is of much value in the archives of medicine. If all the Fellows contribute books as liberally as Drs. Bond and Wood, a library will soon be founded of no small dimensions. Dr. Warrington's report on midwifery is not only elaborate, but abounds with instructive thoughts and facts, creditable to his industry. Next, Dr. Moore's on meteorology and epidemics, may be studied with profit by all orders of practitioners. May we always be favored with such registers of the progress of medical science in the good city of Philadelphia.

Dr. Gibson's Valedictory.—No higher compliment can be paid by a Journalist than to copy liberally from the literary productions of authors. Last week an extract was taken from Dr. Gibson's Valedictory Address to the class of medical graduates in the University of Pennsylvania, both on account of the merit of the observations, and to show our personal respect for an eminent public teacher. Those into whose hands the pamphlet may fall, will discover many excellent thoughts in it, modestly, yet vigorously expressed. Dr. Gibson is not a believer in half-way measures in studying for the profession. His sentiments are in harmony with all the leading minds—that a medical education is never completed. *Live and learn* should be the motto of all orders of practitioners.

Discovery in the Laws of Physiology.—A paper out West, called The Morning Herald, promulgates the happy discovery, that physiology was nothing but chaos till Dr. Buchanan, the lecturer on phrenology, mesmerism, &c., opened the concealed avenues to the brain. The following extract will show the way in which the discoverer is to be immortalized in a penny paper :—

"Physiology has heretofore presented a strange deficiency in the most important department. The physiology of the brain was almost entirely unknown. The phrenological functions are but half, and by no means the most important half, of its offices, in a practical point of view. The physiology of the brain, or the explanation of the effects of its various organs upon the circulation, secretion, &c., which constitutes the key of physiology, is a new science, occupying an unexplored field, and exclusively the discovery of Dr. Buchanan. As a specimen of its principles we would remark, that discovery of the circulation of the blood by Harvey, presented but a single obvious mechanical fact, and gives no explanation of the laws which modify that circulation to produce health, disease, and all the organic actions of the human body. The laws of this circulation in every part, of the modification of the pulse, and the vigorous performance of each function, are fully developed by Dr. Buchanan's system of cerebral physiology. If, then, we have received from Dr. Buchanan a profound system of phrenology, which is as great an improvement upon that of Gall, as the physiology of the present day is upon that of Hippocrates, we deem the discovery an important event in the history of man. This discovery, however, is perhaps less important in its results than the development of a system of physiology based upon the action of the encephalon, which constitutes a solid foundation for the science of medicine."

Spring Physic.—One of the ridiculous popular errors extensively prevalent in New England, is that *spring is the time to physic the blood!* People of excellent sense, who are worldly wise in most things, bow in humble obedience to the old whim, that the whole family, from father to the infant muling and puking in the nurse's lap, must have the blood physicked when the buds begin to swell. Various roots are ordinarily collected from the forest, all of which are considered highly proper for the purpose; and without much reference to their specific medicinal properties, are all boiled together, and the liquor, when strained, is called diet drink. Of this, efficient doses are daily given, whether the consumer is sick or well, till some one conversant with the rationale of the process, decides that the blood has undergone *sufficient* purgation, when the potations are suspended till the return of another season.

The favorite belief that the blood is actually cleansed by certain salmagundi compounds of domestic manufacture, is not easily removed from the minds of some very sensible persons. Old family maxims in regard to the preservation of health, inculcated and illustrated by venerable mothers, cannot be readily effaced. All the medical science of modern days, upheld by men of profound attainments in the laws of diseases, cannot materially change the popular sentiment, that it is a good thing to *physic the blood every spring!*

Epidemic Erysipelas.—Dr. Tuttle, of Littleton, N. H., incidentally remarks, in a letter recently received from him, that "Erysipelas, which prevailed so extensively and so fatally in the winter of 1843 in this vicinity, and across the Connecticut river in Vermont, has made its appearance again in this (Littleton) and the adjoining towns. Four puerperal cases have terminated fatally within two weeks—the patients all attacked within forty-eight hours after confinement, and died in three days."

Cure for Rheumatism.—A worthy, kind-hearted gentleman assured us the other day, that he was in possession of a never-failing remedy for rheumatism, in all its protean forms. It was this: carry a bit of brimstone in the pantaloons pocket, habitually, and never be without it. On asking for an explanation of the principle upon which the disease was either cured or kept at bay, he at once solved the problem by saying the sulphur was absorbed by the blood, the seat of the malady!

Eclectic Medical Institute.—They are as revolutionary in matters of medicine in Ohio, as in the city of Boston. There are very good citizens here, who believe that physic is dangerous even for dogs—others take it only in homœopathic doses. Some love hydropathy better than bread and butter, and never hesitate to swallow anything, provided it is scientifically mixed in cold water. At Cincinnati, another *reform* school has been ushered into being, presumed to be of the ultra order, blazing with new light, which is neither Thomsonism or Beechism, but something that goes in between the two, and entirely at war with the established doctrines taught in all the accredited medical institutions of this country and Europe. This is inferred from the circumstance of its being called the *Eclectic Institute.* In this school, Dr. J. R. Buchanan, the neurologist, has been appointed professor of Physiological Institutes of Medicine and Medical Jurisprudence.

Ellis's Medical Formulary—Correction.—The publishers of this work respectfully request those persons who have the seventh edition, to correct a typographical error for the "*medicated hydrocyanate of potassium,*" at page 83; wherein the symbol for an ounce is used in place of that for a drachm. The following is the correct prescription, and corresponds with the proportions directed in all the previous editions of the work: R. Potassii hydrocyanici medicati, ʒj.; aquæ destillatæ, Oj.; sacchari purificati, ℥iss. Fiat solutio. Dose, a table-spoonful, night and morning.

Origin of Public Registration.—According to Mr Shattuck, "Geneva was one of the earliest cities to establish a system of registration of births, marriages and deaths. Registers were begun as early as 1549, and have since been continued with great care. They are viewed as preäppointed evidences of civil rights. The registration includes the name of the disease which caused the death, entered by a district physician, who is charged by the State with the inspection of every person who died within his district. A second table is made up from certificates setting forth the nature of the disease, with a specification of the symptoms, and observations required to be made by the private physician who may have had the care of the diseased. These registers have been frequently examined. I have before me the results of an examination made by Edward Mallet, a very able work, published in the 'Annales D'Hygiene.' From this work it appears that human life has wonderfully improved since these registers were kept. The number of years which it was probable that every individual born would live, appears in the different periods as follows:

Period.	Years.	Months.	Days.	Rate of Increase.
1550 to 1600	8	7	26	100
1600 to 1700	13	3	16	153
1701 to 1750	27	9	13	321
1751 to 1800	31	3	5	361
1801 to 1813	40	8	10	470
1814 to 1833	45	0	26	521

National Medical Convention.—At a call meeting of the Medical Society of Tennessee, held at Nashville on the 4th inst., for the purpose of appointing delegates to a National Medical Convention to be convened at the city of New York on the first Tuesday in May next, the following resolutions were adopted:—

Resolved, That we approve of the call, by the New York State Medical Society, for a National Medical Convention, whose object shall be the consideration of the best methods for the advancement of medical science, and the elevation of the medical profession in the United States.

Resolved, That thirteen members of this Society be appointed to attend said Convention.

The following members were then elected delegates, viz., Drs. Robert Martin, W. H. Cheatham, B. W. Avent, Jno. B. Hays, and G. H. J. Mayfield, of Middle Tennessee; Drs. Wyat Christian, H. R. Robards, Jackson, of Jackson; Dr. A. H. Smiley of West Tennessee; and Drs. Ramsey, Price, Locke and Deadrick of East Tennessee.

On motion of Dr. Winston, it was

Resolved, That any member of the Society, who may be present at said Convention, be authorized to represent the Society, and aid in carrying out the contemplated designs.—*Nashville Whig.*

Louisville Medical Institute.—At the eighth public commencement in the Medical Institute, held on the 9th of March last, the degree of Doctor of Medicine was conferred on seventy-three young gentleman, who had undergone satisfactory examinations before the Faculty, and otherwise complied with the requirements of the institution. Of this number, twenty-one were from Kentucky, seventeen from Tennessee, eleven from Mississippi, and the remaining twenty-four from nearly half that number of States.

The valedictory address to the graduates was delivered by Professor Miller, and was appropriate, judicious and eloquent. It inculcated in forcible language the code of ethics which must be observed in the professional intercourse of medical men, if they would have peace among themselves, or enjoy the respect of society. It urged with especial emphasis the duty of the physician to respect the professional character of his brethren, and never by word, look or action attempt to disturb the confidence reposed in them by their patients.

The *honorary* degree of Doctor of Medicine was at the same time conferred on Mr. Josiah Gregg, of Missouri, author of "Commerce of the Prairies"; on Dr. A. W. Chapman, of Apalachicola, Florida; and on Dr. John S. Lewright, of Kentucky.

Robert M. Spencer, M.D., of Kentucky, a graduate of the Medical Department of Transylvania; J. H. Crews, M.D., of Ohio, a graduate of the Medical College of Ohio; and Geo. A. J. Mayfield, M.D., of Tennessee, a graduate of the University of Pennsylvania, were admitted to the "*ad eundem*" Degree in the Medical Institute.—*Western Med. Journal.*

Erratum.—In last week's Journal, page 213, line 12, for "fresh ridioule," read facile ridicule.

Report of Deaths in Boston—for the week ending April 18th, 48.—Males, 27, females, 21. Stillborn, 9. Of consumption, 13—smallpox, 1—scarlet fever, 3—throat distemper, 1—erysipelas, 1—inflammation of the bowels, 2—gravel, 1—infantile, 3—dropsy of the brain, 4—rheumatic fever, 2—dropsy, 1—old age, 1—accidental, 1—convulsions, 1—measles, 4—inflammation of the lungs, 3—marasmus, 1—bilious fever, 1—hooping cough, 1—drowned, 1—unknown, 1.

Under 5 years, 13—between 5 and 20 years, 9—between 20 and 40 years, 12—between 40 and 60 years, 11—over 60 years, 3.

Baltimore College of Dental Surgery.—The annual commencement of this institution for conferring the degree of Doctor of Dental Surgery, was held on the evening of February 17th, in the presence of a crowded audience.

The exercises were opened with prayer by the Rev. Dr. Dorsey, after which the band played a tune, when commenced the interesting ceremony of conferring the degree, which was done by the Dean of the Faculty, calling up in alphabetical order the several students who were to receive this honor—when after announcing the States and counties of each one's residence, together with the subject matter of their several theses, the authority for conferring the degree was then read, after which the diploma of the college was presented to each by Dr. John Harris.

Music again enlivening the scene—Prof. C. A. Harris then rose and addressed the graduates in reference to the new theatre of action upon which they were about to embark, and warned them of the responsibilities, duties, and obligations which would constantly claim their attention.

After the address, Mr. Clarkson, one of the graduating class, arose, and in behalf of his fellow graduates and the dental class, returned their thanks to the Faculty for their unremitted efforts to instruct them in the several branches of dental science, together with the kindness and attention uniformly extended to them.

There were nine received the degree—the largest number since the foundation of the college, and it may not be uninteresting to state here the names of the graduates, with their residence and theses. They are as follows, viz.—

Wilkes Allen, Massachusetts; Diseases of the Maxillary Sinus. Stephen Parsons, Georgia; on the Extraction of Teeth. E. P. Burroughs, Canada; Morbid Effects of Diseased Teeth. R. W. Clarkson, N. Jersey; Healthy and Morbid Sympathy. Wm. F. Bason, N. Carolina; Preservation of the Temporary Teeth. A. Baldwin, M.D., Alabama; Constitutional Effects of Diseased Teeth. J. W. Neil, London; Morbid Effects of Diseased Teeth and Gums. V. M. Swaze, N. Jersey; on the Extraction of Teeth. John Locke, Pennsylvania; on Filling Teeth.—*Journal of Dental Science.*

Case of Monstrosity. By Samuel Tyler, M.D., of Frederick, Maryland. Sept. 8th, 1845. My father being called to a lady of this place in labor, made an examination per vaginam, when he discovered there was a placental presentation. Upon the removal of his hand, a strong uterine contraction caused the expulsion of the placenta. Renewing the vaginal examination, he discovered a soft pulpy mass in contact with the finger; but before he had time even to imagine what this abnormal presentation could be, another strong uterine effort expelled a fœtus presenting the following peculiarities: viz. Total deficiency of parietal and occipital bones; the frontal and temporal only partially developed. The brain was perfect; enveloped in its membranes, the dura and pia mater. A total absence of the seven cervical vertebræ, the imperfect head being placed immediately upon the rest of the superior column which presents two distinct sets of spinous processess to the extremity of the sacrum. Whether the bodies of the vertebræ are distinct and separate, or blended into one confused mass, I am unable to say. The thorax and abdomen were normal.—*American Journal of Med. Sciences.*